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Week 3 Discussion: Use Cases vs. ERDs

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Diagrams based on use cases try to model data structures on how people think and interact with systems in the physical world. This means that the high level overview of a system based on a use case diagram is easy to follow and comprehend intuitively. Also, knowing how users and/or customer interact with the system means that functions of the system are more easily apparent. Missing functions can be discovered before it is too late.

However, using Entity relationship diagrams means, in some instances, ERDs can be directly translated into programmatic objects and/or databases (Satzinger, Jackson, & Burd, 2012, p. 99). This means there is less time spent developing data models and structures, and more time spent designing the system. Likewise, because ERDs are placed in data structure friendly models, developers are less likely to forget a needed data structure which is integral to the system being developed.

Personally, I prefer using ERDs. This is mostly because I am used to working with relational databases and I can easily translate an ERD into database components. Since the ERD is already on hand, the meta data for different object models and relational models is also nearly complete, as well.

A use case, being about how people interact with the system, does not model how systems interact with systems (Satzinger, Jackson, & Burd, 2012, p. 70). As such, requirements such as, pulling data from one entity to verify another entity, may be completely overlooked. While it is easy to comprehend at a high level, at the data structure level, there is likely to be many erroneous entries or flat-out unneeded cases due to how computers handle objects and relationships, to how people handle them.

Reference

Satzinger, J. W., Jackson, R. B., & Burd, S. D. (2012). *Systems Analysis and Design in a Changing World* (6th ed.). Boston: Cengage Learning.